

In The United States Patent and Trademark Office

In re Application of:

Assignee: XY, Inc.

Inventors: John L. Schenk

Application No.: 09/478,299

Filed: January 5, 2000

For: METHOD OF
CRYOPRESERVING
SELECTED SPERM
CELLS

Group Art Unit: 1648

Examiner: Not yet assigned

Attorney Docket No.: 22091-701 CON1

Certificate of Mailing Under 37 C.F.R. § 1.8

Pursuant to 37 C.F.R. § 1.8, I hereby certify that this paper and all enclosures are being deposited with the United States Postal Service as first class mail on the date indicated below in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

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INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

In accordance with 37 C.F.R. § 1.56, the references listed below and on the attached Form PTO-1449 are being brought to the attention of the Examiner for consideration in connection with the examination of the above-identified patent application.

1. United States Patent No. 4,267,268, Issued May 12, 1981;
2. United States Patent No. 4,980,277, Issued December 25, 1990;
3. United States Patent No. 5,135,759, Issued August 4, 1992;
4. United States Patent No. 5,514,537, Issued May 7, 1996;
5. International Publication No. WO 99/33956, Publication Date July 8, 1999;

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6. Amann, Rupert P., "Cryopreservation of Sperm," *Encyclopedia of Reproduction*, 1:773-783 (1999);
7. Arriola, J. and Foote, R. H., "Glycerolation and Thawing Effects on Bull Spermatozoa Frozen in Detergent-Treated Egg Yolk and Whole Egg Extenders," *J Dairy Sci*, 70:1664-1670 (1987);
8. Behrman, S. J. and Ackerman, D. R., "Freeze Preservation of Human Sperm," *Am. J. Obstet. and Gynecol.*, 103:5:654-664 (1969);
9. Foote, R. H., "Buffers and Extenders: What Do They Do? Why Are They Important?" *Proc of the 10th NAAB Tech. Conf. on Artificial Insemination and Reproduction*, 62-70 (1984);
10. Graham, J. K. and Hammerstedt, R. H., "Differential Effects of Butylated Hydroxytoluene Analogs on Bull Sperm Subjected to Cold-Induced Membrane Stress," *Cryobiology*, 29:106-117 (1992);
11. Hammerstedt, et al, "Cryopreservation of Mammalian Sperm: What We Ask Them to Survive," *Journal of Andrology*, 11:1:73-88 (1990);
12. Maxwell, W.M.C., and Johnson, L. A., "Chlortetracycline Analysis of Boar Spermatozoa After Incubation, Flow Cytometric Sorting, Cooling, or Cryopreservation," *Molecular Reproduction and Development*, 46:408-418 (1997);
13. Polge, et al, "Revival of Spermatozoa After Vitrification and Dehydration at Low Temperatures," *Nature*, 164:666 (1949);
14. Pursel, et al, "Effect of Orvus ES Paste on Acrosome Morphology, Motility and Fertilizing Capacity of Frozen-Thawed Boar Sperm," *Journal of Animal Science*, 47:1:198-202 (1978);
15. Salisbury, et al, *Physiology of Reproduction and Artificial Insemination of Cattle*, 2nd Ed., San Francisco: W. H. Freeman, 442-554 (1978);
16. Schenk, et al, "Cryopreservation of Flow-Sorted Bovine Spermatozoa," *Theriogenology*, 52:1375-1391 (1999);

17. Seidel, et al, "Insemination of Heifers with Sexed Sperm," *Theriogenology*, 52:1407-1420 (1999);
18. Watson, P. F., "Recent Developments and Concepts in the Cryopreservation of Spermatozoa and the Assessment of Their Post-Thawing Function," *Reprod. Fertil. Dev.*, 7:871-891 (1995).

I. Timing of the Information Disclosure Statement:

This Information Disclosure Statement:

☐ Accompanies the new patent application submitted herewith. 37 CFR § 1.97(a).

☐ Is filed within three months after the filing date of the application or within three months after the date of entry of the national stage of a PCT application as set forth in 37 CFR § 1.491.

☒ As far as is known to the undersigned, is filed before the mailing date of a first Office Action on the merits. In the event, however, that an Office Action has crossed in the mail with this Information Disclosure Statement, the Commissioner is hereby authorized to charge Deposit Account No. 13-0257 for any fees required pursuant to 37 CFR §§ 1.17(p) or 1.17(i)(1).

☐ Is filed after the first Office Action and more than three months after the application's filing date or PCT national stage date of entry filing but, as far as is known to the undersigned, prior to the mailing date of either a final rejection or a notice of allowance and is accompanied by either the fee (\$240) set forth in 37 CFR § 1.17(p) or a certification as specified in 37 CFR § 1.97(e), as checked below.

☐ Is filed after the mailing date of either a final rejection or a notice of allowance, whichever occurred first, and is accompanied by the fee (\$130) set forth in 37 CFR § 1.17(i)(1) and a certification as specified in 37 CFR § 1.97(e), as checked below. This document is to be considered as a petition requesting consideration of the Information Disclosure statement.

The undersigned certifies that:

☐ Each item of information contained in the Information Disclosure Statement was cited in a communication mailed from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.

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☐ No item of information contained in this Information Disclosure Statement was cited in a communication mailed from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned after making reasonable inquiry, was known to any individual designated in 37 CFR § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

II. Copies of the Cited Items:

☒ Copies of all of the items listed on the attached Form PTO-1449 are enclosed.

☐ Copies of only the following items listed on the attached Form PTO-1449 are enclosed:

☐ Copies of those items which are marked with an asterisk (*) in the attached Form PTO-1449 are not supplied because they were previously cited by or submitted to the Office in a prior Application No. _____, filed _____, and relied upon in this application for an earlier filing date under 35 U.S.C. § 120. See 37 C.F.R. § 1.98(d).

☐ Copies of those items which are marked with a double asterisk (**) in the attached Form PTO-1449 are not supplied because they are U.S. patent application(s) and no copy of a U.S. patent application needs to be provided pursuant to 37 C.F.R. § 1.98(a)(2)(iii).

III. Concise Explanation of Relevance:

☐ A concise explanation of relevance of the items listed on Form PTO-1449 is not given.

☐ A concise explanation of relevance of [some of] the items listed on Form PTO-1449 is in the form of an English language copy of a Search Report from a foreign patent office, issued in a counterpart application, which refers to the relevant portions of the references [copy attached].

☐ A concise explanation of relevance of the items listed on form PTO-1449 is given for only non-English language listed item(s). Specifically, the following foreign-language documents are being brought to the attention of the Examiner along with a concise explanation of the relevance of each document, as it is presently understood by the individual designated in 37 C.F.R. § 1.56(c) most knowledgeable about the content of the information in each document:

IV. Conclusion:

Citation of the above documents shall not be construed as:

1. an admission that the documents are necessarily prior art with respect to the instant invention;
2. a representation that a search has been made, other than as described above; or
3. an admission that the information cited herein is, or is considered to be, material to patentability as defined in § 1.56(b).

It is respectfully requested that the Examiner indicate consideration of the cited references by returning a copy of the attached form PTO 1449 with initials or other appropriate marks.

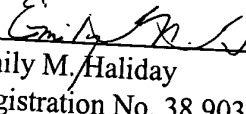
The Commissioner is hereby authorized to charge Deposit Account No. 50-1189 for any additional fees required in connection with the filing of this Information Disclosure Statement.

Please address all correspondence regarding this communication to the following address:

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Dated: May 4, 2000

Respectfully submitted,

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